This report is required by law (7 USC 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 21!

See attached form for additional information.

Interagency Report Control No.:

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. CERTIFICATE NUMBER: 23-R-0020
CUSTOMER NUMBER: 549

FORM APPROVED
OMB NO. 0579-0036

ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)

Swarthmore College
Animal Care Manager
500 College Ave
Swarthmore, PA 19081

Telephone: (610) -328-7335

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, or experimentation, or held for these purposes. Attach additional sheets if necessary)

FACILITY LOCATIONS (Sites) - See Atached Listing

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY **(Attach additional sheets if necessary or use APHIS Form 7023A)**

A. Animals Covered By The Animal Welfare Regulations	B. Number of animal being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not ye used for such purposes.	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use o pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals an for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery or tests were conducted involving accompanying pain or distress to the animals and for wh the use of appropriate anesthetic, analgesic, or tranquiliz drugs would have adversely affected the procedures, res or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress in these animals and the reasc such drugs were not used must be attached to this report	F. TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
4. Dogs					
5. Cats					
6. Guinea Pigs					
7. Hamsters	227	184	0	0	184
8. Rabbits					
9. Non-human Primates					
10. Sheep					
11. Pigs					
12. Other Farm Animals					
13. Other Animals					

ASSURANCE STATEMENTS

1) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anestetic, analgesic, and tranquilizing drugs, prior to, during, and following actual rese teaching, testing, surgery, or experimentation were followed by this research facility.

2) Each principal investigator has considered alternatives to painful procedures.

3) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and ap Institutional Animal Care and Use Committee (IACUC). **A summary of all such exceptions is attached to this annual report.** In addition to identifying the IACUC-approved exceptions, this summary inc brief explanation of the exceptions, as well as the species and number of animals affected.

4) The attending veterinarian for this research facility has appropriate authority to ensure the provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer or Legally Responsible Institutional Official)

SIGNATURE OF C.E.O. OR INSTITUTIONAL OFFICIAL	NAME & TITLE OF C.E.O. OR INSTITUTIONAL OFFICIAL (Type or Print)	DATE SIGNED
b6, b7c		11/24/08

APHIS FORM 7023 (Replaces VS FORM 18-23 (OCT 88), which is obsolete.)
(AUG 91)

NOV 2 4 2008

Swarthmore College

NOV 2 4 2008

Institutional Animal Care and Use Committee

(b)(6), (b)(7)c

Summary of Exceptions to Welfare Regulations

1. One hundred and twenty Siberian (aka Djungarian) hamsters (*Phodopus sungorus*) will be housed in a temperature-controlled chamber for studies of torpor use and dietary lipid choice in cold situations. They will be held at temperatures no lower than 5 °C (41 °F) and no higher than 30 °C (86 °F). The hamsters will be properly housed in every other way and provided cotton as a nesting material for additional floor insulation. Although page 73 (§3.26) of the Animal Welfare Regulations states, "The ambient temperature shall not be allowed to fall below 60°F nor exceed 85 °F". Siberian hamsters commonly experience much lower winter temperatures in the wild, therefore animals are naturally accustomed to such conditions. In IACUC-approved published studies using temperatures designed to fall within the range experienced by this species in nature, furless Siberian hamsters have been successfully held at 5 °C without cotton bedding for 5 weeks (e.g., Kauffman et al. 2001). To eliminate problems occasionally associated with large changes in ambient temperature, treatments will be timed so that hamsters never experience a temperature change of more than 10 °C per day. Animals will also receive cotton bedding as nesting material. Because the use of torpor and the influence of low ambient temperature on diet choice can be studied only at lower temperatures than those maintained in the regular animal housing, the IACUC has approved this use of the controlled temperature chamber.

   Kauffman AS, Cabrera A and Zucker I. 2001. Torpor characteristics and energy requirements of furless Siberian hamsters. *Physiol. Biochem. Zool.* 74:876-884.

2. In studies of circadian rhythms, endogenous rhythms are discovered by housing animals in constant conditions of light or dark cycles. Siberian hamsters are kept in constant darkness during the time period required for observing the free-running circadian rhythm, which is the rhythm exhibited when there are no clues to the actual 24-hour day/night cycle. This is a standard procedure that has been used to investigate circadian rhythms in nocturnal rodents since the 1960's (e.g., Aschoff 1960) and continues to be in common use today (e.g., Hofstetter et al. 2005). A maximum of one hundred and twenty animals will be used. The IACUC has approved housing Siberian hamsters in constant darkness for experiments concerning circadian rhythms.

   Aschoff J. 1960. Exogenous and endogenous components in circadian rhythms. Cold Spr Harbor Symp Quant Biol 25:11-28.

   Hofstetter JR, Hofstetter AR, Hughes AM and Mayeda AR. 2005. Intermittent long-wavelength red light increases the period of daily locomotor activity in mice. J Circad Rhythms 3:8.

Biology Department, 500 College Avenue, Swarthmore, Pennsylvania 19081-1397

3. Page 75 (§3.29(d) Feeding.) of the Animal Welfare Act and Animal Welfare Regulations states that "All food receptacles shall be kept clean and shall be sanitized at least once every 2 weeks". On average, approximately 260 Siberian hamsters (*Phodopus sungorus*) will be used each year as subjects for experiments involving dietary manipulations. In many cases, hamsters are given a choice between 2 food options. Hamster chow 'pellets' are coated or flavored with the experimental substance and are later counted and weighed in order to determine preference and intake. Allowing the cage tops or food receptacles to remain untouched during the experimental period will eliminate the chance of food pellets being mixed between divided hopper compartments as well as prevent any pellets from mistakenly being discarded. Research studies will run anywhere between 2-12 weeks. Under any circumstance in which the food in the hoppers may become moldy or deteriorated, or hoppers become caked with decaying food, the cage tops will be changed and sanitized immediately. Cage tops will be changed and sanitized at the conclusion and start of each experiment. The IACUC has approved changing cage tops in between experiments.

October 29, 2007.